

Client	شركة طرق الرياض للمقاولات	Report No.	240463.116
Project	مشروع البنية التحتية - مخطط تلال الغروب	Sampling Date	22-5-2025
Location	جدة - حي الامير فواز	Sample by	Saddam
Sample Description	BITUMINOUS WEARING COURSE LAYER	Report Date	24-5-2025
Station	STA 0 to STA 214 Street 02 Block 11	Tested By	Abdullah

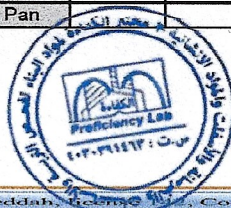
Superpave Mix Design Analysis

Specimen I.D.	Bulk Specific Gravity of Compacted Specimen & Volumetric Properties						Design Criteria
	Ndes			Nmax			
	1	2	Ave.	1	2	Ave	
a. Weight in air, dry (gm)	4820.0	4805.6		4815.3	4818.1		
b. Weight in air, SSD (gm)	4846.3	4816.1		4822.6	4822.6		
c. Weight in water, (gm)	2873.3	2850.1		2909.9	2908.4		
d. Volume, (cc)	1973.0	1966.0		1912.7	1914.2		
e. Specific Gravity (Gmb) (a/d)	2.443	2.444	2.444	2.518	2.517	2.517	
Height @ Nini	133.0	133.0	133.0	130.0	131.0	130.5	
Height @ Ndes	114.0	113.0	113.5	106.0	107.0	106.5	
Height @ Nmax	—	—	—	106.0	107.0	106.5	
% Gmm @ Nini	81.0	80.3	80.7	—	—	—	89 MAX
% Gmm @ Ndes	94.5	94.6	94.5	—	—	—	96±2.0
% Gmm @ Nmax	—	—	—	97.4	97.4	97.4	98 MAX
Air Voids %	5.5	5.4	5.5	2.6	2.6	2.6	2.5 - 5.5%
Voids in Mineral Aggregate (VMA) %	16.4	16.4	16.4	—	—	—	14min-16max
Voids Filled (VF) %	66.5	66.8	66.6	—	—	—	65 - 75
Dust Proportion:	1.28						0.80 - 1.60

Maximum Theoretical Specific Gravity (Gmm)				Mix properties	
Specimen I.D.	1	2	3	Gb =	1.026
a. Net weight of loose mix (gm)	2123.5			Gsb =	2.771
b. Net weight of flask & water (gm)	9353.0			Pg =	94.782
c. Net weight of flask, loose mix & water	10655.1			Gse =	2.82
d. Maximum Theoretical Specific Gravity, Gmm (A/(A+B-C))	2.585			Pba =	0.66
e. Average Gmm	2.585			Pbe =	4.59

Extraction & Gradation			Total weight of Agg: 2099.7		Sieve analysis		
			Sieve Size	Weight Retained gm	Percent Passing	JMF Limit	Ave.
			1-1/2"	0	100.0	100.0	100.0
			1"	0	100.0	100	100.0
			3/4"	0	100.0	100	100.0
Asphalt Content	1	2	1/2"	146	93.0	90 - 98	93.0
a. Wt of sample before test, gm	2215.3		3/8"	441	79.0	74 - 82	79.0
b. Wt of sample after test, gm.	2099.1		#4	886	57.8	50 - 60	57.8
c. Wt of filter before test, gm	31.6		#8	1289	38.6	32 - 42	38.6
d. Wt of filter after test, gm	32.2		#16	1503	28.4	23 - 31	28.4
e. Wt of sample in filter (c-d), gm	0.6		#30	1633	22.2	16 - 24	22.2
f. Wt of total agg. (b+e) gm	2099.7		#50	1818	13.4	10 - 18	13.4
g. Wt of Bitumen, (a-f) gm	115.6		#100	1892	9.9	7 - 11	9.9
h. Percent AC (g/a x 100), %	5.22		#200	1976	5.9	3.5 - 6.5	5.9
i. Average Asphalt Content, %	5.22		Pan				
j. Optimum asphalt Binder content	5.0% ± 0.4						

Lab. Tech
[Signature]



Lab. Eng.
[Signature]



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